

A NEW SPECIES OF *CIDAPHUS* FOERSTER FROM AUSTRALIA, WITH A NOTE
ON THE SYSTEMATIC POSITION OF *TETRAGONALYS* PAGANA MORLEY.

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(Two Text-figures.)

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Synopsis.

A new species of *Cidaphus* Foerster is described and figured from Australia. This new form appears to be closely allied to *Tetragonalys barbarica* Morley, a Himalayan species, described and designated the type species of a new genus by Morley in 1913. Cushman (1924) synonymizes *Tetragonalys* Morley with *Cidaphus* Foerster. About the time he erected the genus *Tetragonalys* for the Himalayan species, Morley described another species, *T. pagana*, from Victoria, Australia, which proves to be an entirely different insect from *T. barbarica*, the type species of the genus. Three specimens in the National Museum of Victoria, Melbourne, bred from the same host as Morley's types of *T. pagana*, and which agree in every detail with Morley's description of the latter species, prove to be congeneric with a species described by Szepligeti in 1908 from Western Australia, under the name *Megaceria opheltes*. A re-description of *Megaceria pagana* (Morley) and a key to separate the two known Australian species are given.

The material on which the following observations are based is in the collections of the National Museum of Victoria, Melbourne.

Subfamily MESOCHORINAE.

Genus *CIDAPHUS* Foerster.

Cidaphus Foerster, 1868, *Naturh. Ver. Rheinlande Verh.*, 25: 149.

Plesiophthalmus Foerster, 1868, *Naturh. Ver. Rheinlande Verh.*, 25: 170.

Mater Schulz, 1911, *Zool. Ann.*, 4: 22. (New name for *Plesiophthalmus*.)

Tetragonalys Morley, 1913, *Rev. Ichn. Brit. Mus.*, Pt. 2: 132.

Plesiophthalmidea Viereck, 1914, *U.S. Nat. Mus., Bull.* 83: 119.

Ophthalmochorus Roman, 1925, *Arkiv for Zool.*, 17a, (4): 29. (New name for *Plesiophthalmus*.)

Type species, *Mesochorus alarius* Gravenhorst.

Cushman (1924: 4) synonymizes *Plesiophthalmus* Foerster, *Tetragonalys* Morley and *Plesiophthalmidea* Viereck with *Cidaphus* Foerster. In accepting *Cidaphus* to replace *Plesiophthalmus* I follow Cushman and the majority of European authors. *Mesochorus alarius* Gravenhorst is the accepted type species of the two genera, but *Cidaphus* has page precedence, in addition to *Plesiophthalmus* being preoccupied by Motschulsky in 1857. This being the case, it is necessary to use *Cidaphus* as the generic name. *Plesiophthalmidea* Viereck was proposed for *Plesiophthalmus paniscoides* Ashmead but, as Cushman points out, this species is certainly congeneric with *alarius* Gravenhorst, and there is no reason for the erection of another genus. Townes (1951: 405) synonymizes *Mater* Schulz and *Ophthalmochorus* Roman with *Cidaphus* Foerster, as both of these names were proposed to replace the preoccupied name *Plesiophthalmus* Foerster.

When Morley erected the genus *Tetragonalys* for a Himalayan species he also included a species from Australia. The Australian species is certainly not congeneric with *T. barbarica* Morley from Sikkim, Tibet, but, as will be pointed out later in this paper, belongs to *Megaceria* Szepligeti, a very distinct genus originally described from Western Australia.

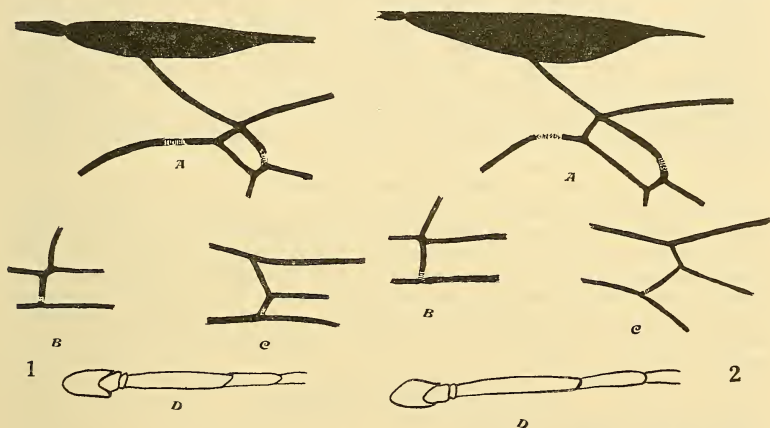
Recently I was delighted to find a specimen of *Cidaphus* in the collections of the National Museum of Victoria, Melbourne. This specimen is a typical *Cidaphus*, as defined by Cushman (1924), and apparently closely related to Morley's *Tetragonalys barbarica* Morley from Tibet.

CIDAPHUS GLABROSUS, n. sp. (Text-fig. 1.)

Female 13 mm. in length.

A testaceous species with the mandibular teeth, stemmaticum and a spot behind the base of the forewings black; the head entirely brown, including the face, the stigma yellow-testaceous with the veins of the forewings darker, but those of the hindwings light testaceous; claws are dark brown.

Internal orbits emarginate slightly above the base of the antennae; face and clypeus distinctly but not closely punctate; clypeus flat, weakly separated from the face, with the anterior margin very broadly rounded; mandibles stout with the teeth subequal in length; ocelli large, lateral ocelli not contiguous with the eyes; malar space absent; antennae about as long as the body, scape ovate, and are moderately incised apically; flagella with 53 segments, with the first twice as long as second (Text-fig. 1, D), the second and third subequal in length; mesonotum shining, minutely punctate; notaulices obsolete, except anteriorly; posterior lateral borders of the mesonotum are strongly reflexed



Text-fig. 1.—*Cidaphus glabrosus*, n. sp. A, Portion of forewing showing areolet and adjacent veins; B, Nervulus; C, Nervellus; D, Scape and two basal segments of flagellum.

Text-fig. 2.—*Megaceria pagana* (Morley).—A, portion of forewing, showing areolet and adjacent veins; B, Nervulus; C, Nervellus; D, Scape and two basal segments of flagellum.

above base of forewings; basal fovea of scutellum shallow, wide, smooth and shining; scutellum without lateral carinae, weakly convex and sparsely punctate, shining; basal fovea of propodeum wide, smooth and shining; areolation of propodeum incomplete, a transverse incomplete carina situated about one-third from base, and a longitudinal carina extends each side to a point about two-thirds from the base; the above-mentioned carinae outline the external and dentiparal areae; propodeum is largely impunctate and shining but the external areae are somewhat transversely wrinkled; cristulae well developed but not connected by a transverse carina; spiracles circular; mesopleurae shining and depressed centrally; sternaules are wide and deep and clearly marked; prepectal carina is deeply emarginate above and below the middle of its length, giving it the appearance of a strongly undulating line; mesopleurae smooth on lower half but strongly crenulated on the upper half; anterior tibiae with only one spur; the intermediate and posterior tibiae have two spurs, the inner being slightly the longer; the inner posterior tibial spur is a little over one-quarter the length of the metatarsal segment; petiolar segment of the abdomen with the spiracles situated a little beyond the middle of the segment, being 0.66 the length of the segment from the base; second tergite twice the length of the postpetiole, lateral grooves or glymmae of the petiolar

occupy the apical three-quarters of the distance from the base to spiracles; abdomen shining, almost smooth with short and fine pubescence, more particularly on the posterior segments; ovipositor 0.46 the length of the petiolar segment, very fine and needle-like; all tarsal claws with somewhat coarse pectinations; there are about eight such pectinations on the posterior claws; areolet in forewing (Text-fig. 1, A) sub-rectangular, petiolate and oblique, almost twice as long as broad; discocubitus curved gently about the middle; subdiscoideus arising from about the middle of the branchial cell; nervulus (Text-fig. 1, B) antefurcal by about 0.17 of its length; abscissula ia 2.8 as long as the intercubitella; nervellus inclivous, upper abscissa weakly arcuate and three times the length of the lower abscissa; wings hyaline and iridescent.

Holotype: Female, Victoria, Australia (National Museum of Victoria).

This species appears to be closely related to *Cidaphus barbarica* (Morley) described from a single male specimen captured at Gyantse in Sikkim during the Tibet Expedition in June, 1904, at an altitude of 13,000 feet. As far as can be ascertained from Morley's description of *C. barbarica* the present species differs in that the propodeum is not completely areolated and both the inner and outer claws are clearly pectinate, and that the pronotum is not stramineous and concolorous with the stigma. *C. glabrosus* differs from North American species in the form of the glymmae on the petiolar segment of the abdomen and in the areolation of the propodeum as well as in many other details of structure. Cushman (1924: 2) places *Cidaphus* in the Mesochorini, now recognized as a subfamily, and from the characters exhibited in the present specimen I concur with that opinion.

Subfamily MEGACERINAE.

This subfamily was erected by Szepligeti for the reception of a unique female, *Megaceria opheltes*, collected by the Michaelsen and Hartinger Expedition to south-west Australia in 1905. It is closely related to the Phytodentini, but differs in the non-pectinate claws, the position of the spiracles of the petiolar segment, which are situated about the middle of the segment, and by the absence of lateral foveae or glymmae between the base and spiracles. Superficially it has the colouring and facies of *Netelia*, and in the form of the areolet it resembles *Cidaphus glabrosus* Parrott described above.

Genus MEGACERIA Szepligeti.

Megaceria Szepligeti, 1908, Die Fauna Sudwest-Australiens, p. 322, pl. 3, fig. 2. (Type species, *M. opheltes* Szepligeti.)

In the collections of the National Museum of Victoria, Melbourne, there are three specimens (one male and two females) which must be referred to this genus. These specimens undoubtedly belong to a species described by Morley from Victoria in 1913, and included by that author in the genus *Tetragonalys* Morley, which he had previously established for a Himalayan species, *T. barbarica*, which in 1924 Cushman synonymized with *Cidaphus* Foerster. The Australian species, included by Morley in *Tetragonalys*, would appear from his own description a very different insect, and certainly is not congeneric with the type of the genus. Morley's description of *T. pagana* from Victoria and Szepligeti's description of *Megaceria opheltes* from south-western Australia leave no doubt in my mind that these two species are not only congeneric but are closely allied, and that *T. pagana* Morley must be transferred to *Megaceria* Szepligeti. The three specimens in the National Museum of Victoria collections, mentioned above, undoubtedly belong to Morley's species described in 1913 as *Tetragonalys pagana* from Victoria, which in future must be known as *Megaceria pagana* (Morley).

Megaceria pagana (Morley) was originally described from a male and a female bred by C. French from a pupa of the lepidopteron *Mnesampela privata* Gn. during August, 1900, at Melbourne. The three specimens in the National Museum were bred from the same host during May and June, 1893.

The following description will serve to supplement Morley's somewhat brief diagnosis of this species.

MEGACERIA PAGANA (Morley).

Tetragonalys pagana Morley, 1913, *Rev. Ich. B.M.*, Pt. 2, p. 132.

Male 14 mm. in length.

Head, thorax, propodeum and abdomen dark brown; legs and antennae lighter brown; teeth of mandibles black-brown; stemmaticum dark brown; apical five segments of flagellum and sides of abdomen infuscated; veins of forewings dark brown except basal third of costa, which is light testaceous; stigma light yellow-brown; veins of hindwings light brown.

Face 1.55 as broad as long, finely and evenly punctate; clypeus 1.75 as long as broad, anterior margin truncated, shining, with a few large, deep setiferous punctures; eyes large, strongly convex reaching to the base of the mandibles, internal orbits emarginate, a little above the base of the antennae; scape ovoid, moderately incised apically (Text-fig. 2, D); flagellum of 63 segments, first two and a half times as long as the second (Text-fig. 2, D); the latter subequal in length to the third segment; second segment 2.6 as long as wide, the intermediate segments about 1.4 as long as wide; mandibles wide and massive, teeth subequal in length; thorax very minutely and closely punctate, mesonotum with the notaulices present but not deeply impressed; scutellum finely punctate, without lateral carinae; metapleurae strongly convex or inflated, especially when viewed dorsally, and bordered by strong carinae, and minutely punctate, the punctures much finer than those on the mesopleurae; propodeum shining, finely and obsoletely punctate, with a strong transverse carina, situated a little beyond the middle of the segment and joining the cristulae on either side; two very short median, longitudinal carinae on anterior portion, forming a minute median tubercle; with the exception of a weak longitudinal carina on each side separating the spiracular areae there are no definite areae defined on this anterior portion of the propodeum; spiracles oval and somewhat raised by a surrounding carina; posterior portion of the propodeum has a strong carina defining clearly the posterior lateral areae, the remainder smooth and shining; abdomen with the petiolar segment weakly dilated anteriorly with a slight constriction at the spiracles, which are situated at about 0.4 of the length of the segment from the base, being slightly nearer the base than to the apex; second tergite subequal in length to the post-petiole, this and the succeeding tergites moderately compressed; posterior tibial spurs short, about a quarter the length of the metatarsal segment; claws small, curved at apex and without pectinations. Venation: origin of radius slightly nearer the base than to apex of stigma and slightly arcuate; areolet (Text-fig. 2, A) large, subrectangular and almost sessile; second transverse cubital strongly bent in apical half; areolet twice as long as high; second recurrent vein except for a slight bend at the broad fenestra which is situated in the upper half; nervulus (Text-fig. 2, B) weakly postfurcal by about 0.2 of its length; abscissula 2.3 the length of the intercubittella; nervellus (Text-fig. 2, C) reclivous, broken at about its upper third, the lower abscissa 2.3 as long as the upper abscissa.

Female similar in colour and structure to the male, except that the first segment of the flagellum is about $2\frac{1}{4}$ times the length of the second segment, and the intermediate segments are about 2.3 as long as broad; the number of segments in the flagellum (57) is less than in the case in the male. The ovipositor is short, subexserted, hardly reaching the apex of the abdomen.

Specimens examined: One male and two females reared from *Mnesampela privata* (Lepidoptera), Victoria, Australia, during May and June, 1893 (National Museum of Victoria, Melbourne).

Megaceria pagana (Morley) is very similar to Szepligeti's Western Australian species *M. opheltes*, but the two species may be separated as follows:

Face finely rugose, clypeus weakly punctate; abscissula of hindwings about four times the length of the intercubittella; a yellow-brown species *M. opheltes* Szep.
 Face closely and finely punctate, clypeus shining with several deep and large setiferous punctures; abscissula $2\frac{1}{4}$ times to 2.3 times the length of the intercubittella; a dark-brown species *M. pagana* (Mor.).